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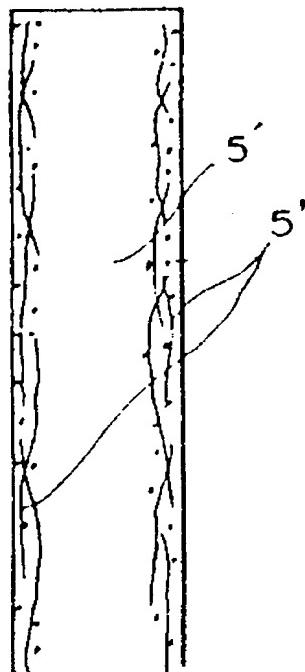
APPLICATION DATE : 03-12-86  
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APPLICANT : EBARA RES CO LTD;

INVENTOR : MITSUNE KOICHI;

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TITLE : BIPOLAR PLATE FOR ELECTROLYTIC  
CELL



ABSTRACT : PURPOSE: To produce a bipolar plate for an electrolytic cell having excellent strength and deformation resistance by welding carbon fiber paper under heating and pressurizing to both faces of plate-shaped composite material consisting of carbon powder and thermoplastic resin.

CONSTITUTION: The electrolytic cell for electrolysis of an electrolyte is constituted by housing electrodes, the bipolar plate, ion exchange membrane and lead terminal part into a vessel. The bipolar plate of such device is formed by welding the carbon fiber paper 5" made of the carbon fibers to a paper shape under heating and pressurizing to both faces of the plate-shaped body 5' formed by molding a mixture composed of carbon powder and the thermoplastic resin to a plate shape. PE, etc., are used for the thermoplastic resin and the amt. of the carbon powder to be mixed is specified to about 60~90vol% of the plate-shaped body 5'. The strength and deformation resistance are thereby greatly improved and the failure and deformation of the plate are prevented.

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